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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,323	02/17/2004	David Szymanski	INDI 2 00002	1107

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FAY SHARPE LLP
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CLEVELAND, OH 44114

EXAMINER

DEXTER, CLARK F

ART UNIT	PAPER NUMBER
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3724

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/780,323

Applicant(s)

SZYMANSKI, DAVID

Examiner

Clark F. Dexter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-27,29 and 30 is/are pending in the application.
- 4a) Of the above claim(s) 11,17,21,22,25-27,29 and 30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-10,12-16,18-20,23 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 29, 2007 has been entered.

Claim Objections

2. Claims 1-3, 5-10, 12, 15, 16, 18, 19, and withdrawn claim 27 are objected to because of the following informalities:

In claim 1, line 1, the status identifier is accurate and should read --(Currently Amended)-- or the like; in line 1, "of" is not sufficiently clear as to what is being set forth, particularly based on the language in the body of the claim, and also a word (e.g., a) appears to be missing before "saw", and it seems that "of" should be changed to --for a-- or the like; in line 5, the recitation "wherein" is awkward and it seems that it should be deleted.

Claim 7 depends from canceled claim 4 which is improper and it seems that "4" should read --1-- and this claim has been treated as such.

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In claim 15, line 1, in line 1, "of" is not sufficiently clear as to what is being set forth, particularly based on the language in the body of the claim, and also a word (e.g., a) appears to be missing before "saw", and it seems that "of" should be changed to --for a-- or the like.

In claim 16, line 1, in line 1, "of" is not sufficiently clear as to what is being set forth, particularly based on the language in the body of the claim, and also a word (e.g., a) appears to be missing before "saw", and it seems that "of" should be changed to --for a-- or the like.

In claim 18, line 1, in line 1, "of" is not sufficiently clear as to what is being set forth, particularly based on the language in the body of the claim, and also a word (e.g., a) appears to be missing before "saw", and it seems that "of" should be changed to --for a-- or the like.

In claim 19, line 1, in line 1, "of" is not sufficiently clear as to what is being set forth, particularly based on the language in the body of the claim, and also a word (e.g., a) appears to be missing before "saw", and it seems that "of" should be changed to --for a-- or the like.

In claim 27, line 1, the status identifier is accurate and should read
--(Withdrawn)-- or the like

Appropriate correction is required.

Claim Rejections - 35 USC § 112, 2nd paragraph

3. Claims 14, 19, 20, 23 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 14, line 2, the recitation "a saw comprising" is vague and indefinite as to what is being set forth including how it can simultaneously comprise all of the recited saws, and it seems that --one of-- should be inserted after "comprising" or the like.

In claim 16, lines 4-5, the recitation "said taper having a close tolerance comprising no more than 0.5 degrees" is vague and indefinite as to what is being set forth, particularly as to what the tolerance is being related (e.g., as compared with claim 1 wherein the tolerance is related to the mating surface).

In claim 18, lines 5-6, the recitation "said taper having a close tolerance comprising no more than 0.5 degrees" is vague and indefinite as to what is being set forth, particularly as to what the tolerance is being related (e.g., as compared with claim 1 wherein the tolerance is related to the mating surface).

In claim 19, line 10, the recitation "said cutting member surface" lacks positive antecedent basis, and it is suggested in line 6 to insert --a surface having-- after "including" or the like.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Rejections Over Wright:

5. Claims 1-3, 6-10, 12, 15, 16, 18-20, 23 and 24 are rejected under 35 U.S.C.

103(a) as being unpatentable over one of Wright, pn 4,744,278 in view of Funakubo, pn 3,800,633.

Wright discloses a link of a saw chain with almost every structural limitation of the claimed invention including:

a base member (e.g., 52) adapted to be pivotally connected to other links of the saw chain, said base member comprising a seat surface having a first taper (e.g., the upper surface of 65 as viewed in Fig 7); and

a cutting member (e.g., 54) that comprises a cutting edge and releasably engages said base member, said cutting member including a surface having a second taper, wherein said first taper and said second taper extend at an angle ranging from about 0.5 to about 45 degrees relative to a direction of chain travel at a close tolerance effective to cause self-locking engagement of said first taper of said seat surface and said second taper of said cutting member surface;

[claim 2] wherein said close tolerance is characterized by variation in said angle being not more than about 10 degrees (as best understood);

[claim 3] wherein said close tolerance is characterized by variation in said angle being not more than 0.5 degrees (as best understood);

[claim 12] wherein at least one of said cutting member and said base member comprises a water-resistant material applied by a process selected from the group consisting of steam treatment, resin infiltration, copper infiltration and loctite infiltration (e.g., the base material in Wright is disclosed as "investment case of hard, high strength steel" which is a water-resistant material, and because the product is disclosed, the process by which the product is made is not critical);

[claim 20] wherein said close tolerance comprises no more than 0.5 degrees (as best understood).

Wright lacks the specific material designations for each of the base member and the cutter member, as follows:

[claim 1] the link of a saw chain wherein said surface has the second taper constructed from sintered and compacted particles of abrasion resistant material;

[claim 6] wherein said base member comprises sintered and compacted particles of abrasion resistant material;

[claim 7] wherein said abrasion resistant material comprises at least one of metal and ceramic;

[claim 8] wherein said abrasion resistant material comprises a carbide containing compound;

[claim 9] wherein said carbide containing compound comprises a compound selected from the group consisting of tungsten carbide, silicon carbide, tantalum carbide and aluminum carbide;

[claim 10] herein said abrasion resistant material comprises a tool steel alloy;

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[claim 15] wherein said cutting member consists essentially of sintered and compacted particles of abrasion resistant material;

[claim 16] wherein said cutting member consists essentially of sintered and compacted particles of abrasion resistant material;

[claim 18] wherein said base member consists essentially of sintered and compacted particles of abrasion resistant material;

[claim 19] said cutting member comprises sintered and compacted particles of abrasion resistant material.

However, it is respectfully submitted that the use of such material on cutting teeth is old and well known in the art. For example, Funakubo discloses one example of a disclosure that discusses many of the claimed materials (e.g., see col. 1, the paragraph beginning at line 6) including the materials set forth in the subject claims, and teaches that these materials have been used for their known benefits including improved durability and strength characteristics. Therefore, it would have been obvious to one having ordinary skill in the art to use the subject materials to make the cutters of Wright for the well known benefits including those described above.

Regarding claims 23 and 24, both claims are clearly met by Wright in that:

said first taper and said second taper extend upwardly or downwardly from a location near said cutting edge in a direction opposite to said direction of chain travel; and said angle is about 10 degrees or less.

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Rejections Over Raetz:

6. Claims 1-3, 6-9, 13-16, 18-20, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over one of Raetz, pn 3,547,167 in view of Funakubo, pn 3,800,633.

Raetz discloses a link of a saw chain with almost every structural limitation of the claimed invention including:

a base member (e.g., 6, 7) adapted to be pivotally connected to other links of the saw chain, said base member comprising a seat surface (e.g., 7 including surfaces 18, 19; see also col. 3, lines 36-37) having a first taper; and

a cutting member (e.g., 9) that comprises a cutting edge and releasably engages said base member, said cutting member including a surface having a second taper, wherein said first taper and said second taper extend at an angle ranging from about 0.5 degrees to about 45 degrees relative to a direction of chain travel at a close tolerance effective to cause self-locking engagement of said first taper of said seat surface and said second taper of said cutting member surface;

[claim 2] wherein said close tolerance is characterized by variation in said angle being not more than about 10 degrees (as best understood);

[claim 3] wherein said close tolerance is characterized by variation in said angle being not more than 0.5 degrees (as best understood);

[claim 20] wherein said close tolerance comprises no more than 0.5 degrees (as best understood).

Regarding claim 13, Raetz discloses every structural limitation of the claimed invention including:

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a saw chain comprising a plurality of the quick change cutting links of claim 1;
[claim 14] wherein said saw chain is adapted for use on a saw comprising a chain saw, a timber harvester, a buck saw and a saw for cutting wood pallets.

Raetz lacks the specific material designations for each of the base member and the cutter member, as follows:

[claim 1] the link of a saw chain wherein said surface has the second taper constructed from sintered and compacted particles of abrasion resistant material;

[claim 5] wherein said base member comprises stamped metal.

[claim 6] wherein said base member comprises sintered and compacted particles of abrasion resistant material;

[claim 7] wherein said abrasion resistant material comprises at least one of metal and ceramic;

[claim 8] wherein said abrasion resistant material comprises a carbide containing compound;

[claim 9] wherein said carbide containing compound comprises a compound selected from the group consisting of tungsten carbide, silicon carbide, tantalum carbide and aluminum carbide;

[claim 10] herein said abrasion resistant material comprises a tool steel alloy;

[claim 15] wherein said cutting member consists essentially of sintered and compacted particles of abrasion resistant material;

[claim 16] wherein said cutting member consists essentially of sintered and compacted particles of abrasion resistant material;

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[claim 18] wherein said base member consists essentially of sintered and compacted particles of abrasion resistant material;

[claim 19] said cutting member comprises sintered and compacted particles of abrasion resistant material.

However, it is respectfully submitted that the use of such material on cutting teeth is old and well known in the art. For example, Funakubo discloses one example of a disclosure that discusses many of the claimed materials (e.g., see col. 1, the paragraph beginning at line 6) including the materials set forth in the subject claims, and teaches that these materials have been used for their known benefits including improved durability and strength characteristics. Therefore, it would have been obvious to one having ordinary skill in the art to use the subject materials to make the cutters of Wright or Raetz for the well known benefits including those described above.

Further, regarding claims 23 and 24, both claims are clearly met and explicitly disclosed by Raetz in that:

said first taper and said second taper extend upwardly or downwardly from a location near said cutting edge in a direction opposite to said direction of chain travel; and said angle is about 10 degrees or less.

Further Rejections Over Wright or Raetz:

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Wright, pn 4,744,278 in view of Funakubo, pn 3,800,633 or the combination of Raetz, pn 3,547,167 in view of Funakubo, pn 3,800,633 as applied to

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claim 1 above, and further in view of any one of Ackley, pn 2,725,083 or Abbott, pn 2,873,775 or Oehrli, pn 3,144,059 or Ehlen, pn 3,308,859 or Carlton, pn 4,901,613.

Each combination lacks:

[claim 5] wherein said base member comprises stamped metal.

However, the Examiner maintains the taking of Official notice that such materials are old and well known in the art and provide various well known benefits including superior strength and durability. Ackley (col. 2, lines 51-53), Abbott (col. 2, lines 9-11), Oehrli (col. 8, lines 43-44), Ehlen (col. 2, lines 41-43) and Carlton (col. 3, lines 60-61) each disclose examples of links having components made from stamped metal.

Therefore, it would have been obvious to one having ordinary skill in the art to use the subject materials to make the cutters of Wright or Raetz for the well known benefits including those described above.

It is noted that the common knowledge or well-known in the art statement of the previous office action has been taken to be admitted prior art because applicant either failed to traverse the examiner's assertion of official notice or that the traverse was inadequate. See MPEP § 2144.03.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Wright, pn 4,744,278 in view of Funakubo, pn 3,800,633 or the combination of Raetz, pn 3,547,167 in view of Funakubo, pn 3,800,633 as applied to claim 1 above, and further in view of any one of Dawson, pn 3,023,490 or Gaddis et al., pn 4,750,396.

Each combination lacks:

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[claim 10] wherein said abrasion resistant material comprises a tool steel alloy.

However, the Examiner maintains the taking of Official notice that such materials are old and well known in the art and provide various well known benefits including superior strength and durability. Dawson (e.g., see the claims, particularly claims 4 and 21) and Gaddis (see the abstract) each disclose examples of cutting members comprising tool alloy steel. Therefore, it would have been obvious to one having ordinary skill in the art to use the subject materials to make the cutters of Wright or Raetz for the well known benefits including those described above.

It is noted that the common knowledge or well-known in the art statement of the previous office action has been taken to be admitted prior art because applicant either failed to traverse the examiner's assertion of official notice or that the traverse was inadequate. See MPEP § 2144.03.

Response to Arguments

9. Applicant's arguments filed January 29, 2007 have been fully considered but they are not persuasive.

In the paragraph bridging pages 8 and 9 of the subject amendment, applicant argues that:

"Funakubo, it does not teach the claim element either, nor does it suggest or motivate one of ordinary skill in the art to make the surface which mates with the base member from sintered and compacted particles of abrasion resistant material. At best, Funakubo only suggests or motivates the person of ordinary

skill in the art to modify the teachings of Wright and Raetz to use such materials as the cutting tip of the cutting element of both Wright and Raetz. Funakubo provides no motivation for using such materials as an internal mating surface."

The Examiner respectfully disagrees with applicant's analysis. There is no requirement in the claims that only the mating surface is made from sintered and compacted particles of abrasion resistant material. Rather, the claim requires only that the claimed material to be present at least in or at the recited location. Funakubo teaches making the entire unitary cutter or cutting tip from the recited material. This would teach one having ordinary skill in the art to make the entire unitary cutter of Wright (e.g., 54, 66) and Raetz (e.g., 9) from the recited materials. Therefore, the Examiner respectfully submits that the prior art teaches and/or fairly suggests the claimed invention.

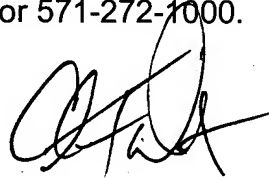
Regarding applicant's arguments in the last three paragraphs on page 10 of the amendment, the Examiner respectfully submits that this showing is not prima facie persuasive for at least three reasons. First, there is no indication as to what are the standards of the challenge. Second, there is no indication as to what prior art the present invention was compared (e.g., it is not clear as to what prior art was available for such a comparison). Third, there is no indication as to how the rules of the contest relate/compare to the U. S. laws to determine patentability.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clark F. Dexter whose telephone number is (571)272-4505. The examiner can normally be reached on Mondays, Tuesdays, Thursdays and Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer D. Ashley can be reached on (571)272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**Clark F. Dexter
Primary Examiner
Art Unit 3724**

cf
April 16, 2007